

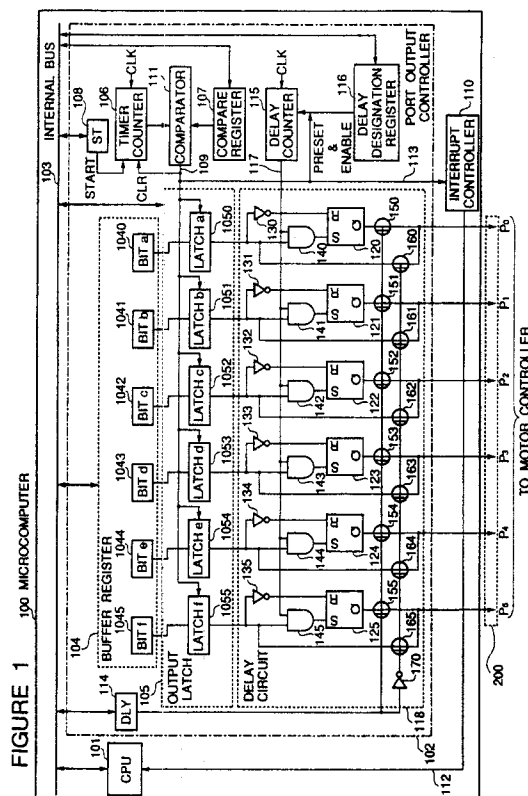
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Port output controller for use in microcomputer.

A port output controller for use in a microcomputer for outputting data to a plurality of output terminals in real time, includes a latch circuit for latching data being outputted to the output terminals and a buffer register for storing data to be outputted to the output terminals next to the data being outputted to the output terminals. A timer counter counts an elapsed time after the next data has been latched in the latch circuit and causes the next data stored in the buffer register to be latched into the latch circuit when the counted elapsed time becomes a predetermined data outputting period of time. In a delayed output mode, a delay counter counts a delayed time after the next data has been latched in the latch circuit, and a delay output circuit controls the outputting of the data latched in the latch circuit to the output terminals in such a manner that if the data latched in the latch circuit is a first value, the data latched in the latch circuit is outputted to the output terminal without delay, and if the data latched in the latch circuit is a second value, the data latched in the latch circuit is outputted to the output terminal when the counted delayed time has become a predetermined delay time.





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EUROPEAN SEARCH REPORT

Application Number

EP 91 11 7761

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int. Cl.5)
X	EP-A-0 391 574 (DELCO ELECTRONICS CORPORATION) * column 1, line 6 - column 1, line 45 * * column 3, line 45 - column 4, line 44; claims 1,2; figures 1,2 * ---	1-4	H02P7/00 G06F13/38
A	EP-A-0 160 896 (KABUSHIKI KAISHA TOSHIBA) * page 5, line 16 - page 12, line 10; figure 3 * ---	1-4	
A	EP-A-0 373 693 (SGS-THOMSON MICROELECTRONICS S.R.L.) * column 1, line 1 - column 2, line 19 * * column 3, line 46 - column 5, line 7; figure 3 * ---	1-4	
A	ELEKTRONIK vol. 36, no. 22, 30 October 1987, MÜNCHEN, DE pages 94 - 96; H. SAX: 'Motorbrücke mit hohem Wirkungsgrad' * page 95, left column, paragraph 2 - right column, paragraph 1; figures 3,4 * -----	1-4	TECHNICAL FIELDS SEARCHED (Int. Cl.5) G06F H02P H02M H03K
The present search report has been drawn up for all claims			
Place of search BERLIN	Date of completion of the search 14 MAY 1992	Examiner R. ABRAM	
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			